Project Fact Sheet

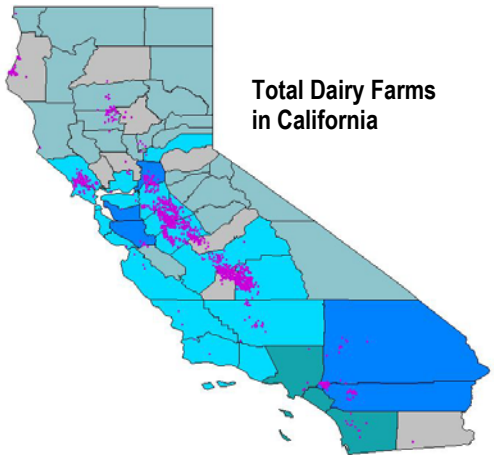
Commonwealth Project 3.1 - Dairy Waste to Energy

GOALS

- Develop technologies that can be used to maximize the energy recovery from animal waste.
- Develop and evaluate different pilot projects that will include facilities at existing treatment plants and at individual and clusters of dairies.
- Evaluate and test the effectiveness of low and high technologies developed in North America and Europe for the collection processing and energy recovery of animal waste.

PROJECT DESCRIPTION

This project is to test and demonstrate the use of several advanced technologies to enhance the process of generating energy from animal waste. Means of improving the digesting process include options such as high-rate, phased digestion, pre-hydrolysis processes (thermal hydrolysis), and co-digestion with wastewater sludge can improve economics of anaerobic digestion. Technologies that will be applied to improve economics of handling these streams include membranes separation processes, gasification or heat drying, and belt press and centrifuge dewatering equipment. Screening and grinding equipment will be pilot tested to develop and optimize equipment for these applications.



BENEFITS TO CALIFORNIA

There are 2308 dairy farms in California. The lack of integrated waste management/energy production systems together with historically low waste disposal and energy cost have lead to the present situation where livestock wastes are generally land-applied and no energy is recovered. However, increasing concern with air and ground water impacts associated with agricultural operations and rising energy prices are contributing to a condition where such livestock waste to energy projects can be developed economically when considering cost for controlling liquid discharge environmental issues and potential

added revenues from animal was to energy. The project is to demonstrate key technical component to allow such projects to be economic is the development of an integrated waste management/energy recovery system. By focusing on the combined system including captured environmental benefits, transmission/distribution savings, and individual technology elements associated with waste treatment, the project will generate comprehensive results – which has not occurred to date.

FUNDING AMOUNT

Commission	$3,274,664
Match	$4,855,000

PROJECT STATUS

The project is scheduled from 9/13/2002 to 12/31/2004. The Commonwealth program kick off meeting was held on May 29, 2002 at the California Energy Commission. The project is currently on schedule and within the budget.

FOR MORE INFORMATION

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